

DEVELOPING LEARNING MATERIALS FOR SPECIFIC PURPOSES

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Abstract: Teaching/learning materials is one of the very crucial elements that has to exist to conduct teaching/learning activities. This paper describes teaching/learning materials development for ESP. The description includes the definition, the principles, the procedure, and the practical undertaking of the materials development with the case of developing learning materials for ESP.

Key words: materials development, specific purposes

English has been acknowledged by most countries in the world as an international language. Consequently, English has to be used in international communication both orally and in written communication, for general as well as specific needs. Therefore, people in countries where English is used as a second or foreign language have to learn it, if they want to be able to communicate internationally. Indonesia, where English is a foreign language, also has to teach the citizens especially the young generation to learn English.

English teachers usually teach their students by using available textbooks. However, such learning materials which are really suitable with the needs of the students are not always available. This condition should not discourage the teachers as far as they have the objective(s) of the teaching or are familiar with the need(s) of the students. By having the objectives of the teaching/learning or being familiar with the needs of the learners, the teachers can develop their own materials for the learners to achieve the objectives or to fulfill the needs of the learners.

This paper aims at giving insightful ways for teachers to develop learning materials suitable for their students' difficulty level, needs and objective(s) of the teaching the teachers have designed. The organization of this paper includes the definition of materials development, the principles and procedure of materials development, the practical undertaking of the materials development, materials development for specific purposes, and the concluding remarks.

MATERIALS DEVELOPMENT

First of all, before discussing materials development as a field of study and the practical undertaking of it, I would like to make sure what is meant by materials in materials development. Materials mean anything which is used to help to teach language learners. Materials can be in the form of a textbook, a workbook, a cassette, a CD-ROM, a video, a photocopied handout, a newspaper, a paragraph written on a whiteboard or anything which presents or informs about the language being learned (Tomlinson, 1998:xi). Further, Tomlinson (2001) states that materials mean anything which can be used to facilitate the learning of a language (linguistic, visual, auditory or kinesthetic). These materials can be presented in print, live performance, on cassettes, CD-ROM, DVD, or in the internet. These materials can be instructional, experiential, elicitive, or exploratory. The material is instructional when it informs the learners about the language. It is experiential when it provides exposure to the language in use, elicitive when it stimulates language use, and exploratory when it seeks discoveries about language use in natural settings.

There are at least two things to be elaborated about materials development. It is both a field of study and a practical undertaking. As a field of study, it studies the principles and procedures of the design, implementation, and evaluation of language teaching materials. As a practical undertaking, it involves the production, evaluation, and adaptation of language teaching materials, by teachers for their own classrooms and by materials writers for sale or distribution (Tomlinson, 2001:66).

With this concept, this paper discusses materials development from the theoretical points of view of its principles and procedures of the development through its practical undertaking from evaluating, adapting, supplementing and creating own materials (Pinter, 2006).

Materials Development as a Field of Study

As a field of study, materials development studies the principles and procedures of the design, implementation, and evaluation of language teaching materials.

Principles of Materials Development

There are sixteen principles that Tomlinson (1998:7-21) summarizes of what he thinks many SLA researchers would agree to be the basic principles of

SLA relevant to the materials development for the teaching of languages. These principles are briefly outlined in this section.

Materials should achieve impact. "Impact is achieved when materials have a noticeable effect on learners, that is when the learners' curiosity, interest, and attention are attracted. If this is achieved there is a better chance that some of the language in the materials will be taken for processing". Further, it is said that materials can achieve impact when they are new, varied, presented attractively, and appealing content.

Materials should help learners to feel at ease. Materials can help learners to feel at ease in many ways, for example, texts and illustrations rather than just texts, texts that the learners can relate with their own culture than those that are culturally bound, materials that include examples rather than without, and many others.

Materials should help learners to develop confidence. Quoting Dulay, Burt, and Krashen 1982, Tomlinson (1998:9) said that "Relaxed and self-confident learners learn faster". Many learners feel relaxed and self-confident if they think that the materials they learn are not too difficult but just one step further or more difficult than they master.

What is being taught should be perceived by learners as relevant and useful. In ESP, teachers of English can easily select materials that are relevant to the specific choice of topics and tasks that the learners are also learning in their field of study, therefore, the materials they learn must be relevant and useful.

Materials should require and facilitate learner self-investment. Materials that enable the learners to be interested in them, that can draw their attention, and that can attract them to learn the materials will facilitate them to learn the materials by themselves.

Learners must be ready to acquire the points being taught. To acquire the points being taught, the materials learned should be $i + 1$ in which i represents what has already been learned and 1 represents what is available for learning. According to Krashen (1985), each learner will only learn from the new input what he or she is ready to learn.

Materials should expose the learners to language in authentic use. A lot of teaching/learning materials can provide exposure to authentic input through the instructions, advice they give for the activities and the spoken and the written texts included in the materials.

The learners' attention should be drawn to linguistic features of the input. These linguistic features should not become the main focus in the materials but the learners should be made aware that linguistic features are needed to locate and to make a generalization about the function of the linguistic features in the main materials.

Materials should provide the learners with opportunities to use the target language to achieve communicative purposes. After learning the materials, learners should be given opportunities to practice the language they have learned for communication in real life situation not just practicing it in the classroom controlled by the teacher.

Materials should take into account that the positive effects of instruction are usually delayed. As it can be observed in our daily teaching, learners learning a language is not an instantaneous process but a gradual one. In order to facilitate the gradual process of learning or acquiring a language, it is important to give frequent and ample exposure to the instructed language features in communicative use.

Materials should take into account that learners differ in learning styles. Not all learners have the same learning styles. Language learning styles include visual, auditory, kinaesthetic (e.g. the learner prefers to do something physical, such as following instructions), studial (e.g. the learner likes to pay conscious attention to the linguistic features of the language and wants to be correct), experiential, analytic, global, dependent and independent.

Materials should take into account that learners differ in affective attitudes. Learners' attitudes vary in types and times. Ideal learners will need strong and consistent motivation, positive feelings towards the target language, their teachers, their fellow learners, and the materials they are learning. Realizing this fact, materials should provide choices of different types of texts and types of activities.

Materials should permit a silent period at the beginning of instruction. The silent period is used to facilitate the development of an effective internalized grammar and other language elements which can help learners to achieve proficiency. The other possible extension of the principle of permitting silence is to introduce most new language points through activities which initially require comprehension before production.

Materials should maximize learning potential by encouraging intellectual, aesthetic and emotional involvement which stimulates both right and left brain activities. This principle means that materials which encourage the learners to learn the same lesson involving different cerebral processes and different states of consciousness in many different parts of the brain will maximize recall.

Materials should not rely too much on controlled practice. This principle is intended to state that it is still controversial to say that controlled practice activities are valuable. The statements which state that most spontaneous performance is attained by dint of practice (Sharwood-Smith, 1981) and automaticity is achieved through practice (Bialystok, 1988) have no evidence. However, many researchers agree with Ellis saying that 'controlled practice

appears to have little long term effect on the accuracy with which new structures are performed' (Ellis, 1990:192) and 'has little effect on fluency' (Ellis and Rathbone, 1987). Yet, controlled grammar practice activities still feature significantly in popular coursebooks and are considered useful by many teachers and by many learners.

Materials should provide opportunities for outcome feedback. Feedback which is focused on the effectiveness of the outcome rather than just on the accuracy of the output can lead to output becoming a profitable source of input. Therefore, a learner who is successful to achieve a particular communicative purpose will gain positive feedback on the effectiveness of the use of the language for further language outcome. In relation to this, materials developer has to be sure that language production activities have intended outcomes other than just practicing language.

Materials Development Procedures

The steps or procedure of materials development includes the design, implementation, and evaluation of language teaching materials. Dick and Carey (1990) suggest ten components of the systems approach model, that is, identify an instructional goal, conduct an instructional analysis, identify entry behaviors and characteristics, write performance objectives, develop criterion-referenced test items, develop an instructional strategy, develop and/or select instructional materials, design and conduct the formative evaluation, revise instruction, and conduct summative evaluation. Each of these components is closely related to each other in the systems approach model.

To design/develop an accurate teaching materials, each component in the systems has to be considered. In other words, suitable teaching/learning materials should be able to fulfill each of the other components in the system approach.

The teaching/learning materials already developed for specific target learners have to be implemented in the real learning/teaching situation. The implementation of the learning/teaching materials in the real situation in this step is meant to try out the teaching/learning materials whether they are suitable for the target learners. If not, then the learning/teaching materials have to be revised based on the data obtained from the try out to the target learners. This is called the evaluation step.

Materials Development as a Practical Undertaking

Learning/teaching materials, in practice, can be developed/produced by evaluating learning materials, adapting, supplementing and creating own mate-

rials (Pinter, 2006). Teachers usually use any textbook available to teach their students. What they can do is usually trying to evaluate the textbook they have to use to teach their students. In evaluating the textbook, teachers observe what works and what does not work and they add their own style/preference and interpretation to the textbook. If they think that the textbook is in line with the curriculum/syllabus, the textbook can be used to teach their students. Teachers will evaluate and select textbooks according to how appropriate they seem for the given context. Well-designed textbooks can support inexperienced teachers a lot because they act as training materials. Textbooks can also be evaluated by exploring teachers' and learners' experiences and opinions about the textbooks as used in the classroom. This evaluation can result in the most effective textbooks which can be used in the classroom. This result, however, cannot be valid for different students and teachers and in different time.

After evaluating the textbook, each teacher has his/her own decision, that is, using the textbooks without having any change at all, adapting it according to the needs, supplementing it if necessary, or if the textbook does not fulfill the teachers' criteria, they can create their own materials based on their students' needs or other criteria of developing materials. Adapting a text can be based on different criteria. One possible adaptation is associated with the linguistic demands. A difficult text can be adapted by teachers to suit the competence level of the class. Pinter (2006:120) describes an adaptation of a well-known fable "The grasshopper and the ants" from the original one to teach her class of eight-year-olds with very little English. Although this adaptation shows quite different form from the original one, this adapted fable still works for a number of reasons. First of all, the story is still a good source for learning new vocabulary, structures, and functions. From the vocabulary point of view, children can learn the names of animals, grasshopper and ants. From the structure, they can learn past tense used in the story, questions and answers in the conversation between the grasshopper and the ants. From the functions, the fable still can be enjoyed by the children when they read it or listen to it and the fable still can teach the traditional moral lesson about the need to work for food.

Another thing to remember is that adapting teaching materials, especially from the authentic text, does not always work well. In adapting the authentic text to become learning materials, a teacher has to remember the English that the students have to learn from the adapted texts. Still, we have to allow the students to have an effort to cope with more challenges from the adapted texts. A teacher has to be conscious that gradually the students will have to struggle themselves to face the authentic texts without having any adaptation.

Supplementing the existing textbooks used to teach is another effort to cover the weakness of the available textbooks that does not match with the syllabus/curriculum or objectives of the teaching/learning. The supplementary teaching/learning materials can vary according to the availability of the materials or the creativity of the teachers.

Creating own materials is the teachers' last effort to develop learning materials instead of adapting or supplementing the existing textbooks or authentic texts. There should be fundamental bases in order to create own materials, among others, teaching objectives or instructional goals (Dick and Carey, 1990), students' needs, and topic-based planning (Pinter, 2006:124).

Dick and Carey (1990) suggest a long procedure to develop instructional materials after identifying instructional goals. There are five steps between identifying instructional goal up to the instructional materials development: conducting instructional analysis, identifying entry behaviors and characteristics, writing performance objectives, developing criterion-referenced test items, and developing instructional strategy. The next step is developing and selecting instructional materials. With these steps Dick and Carey want to emphasize on the accuracy of all the components in the system approach of instructional design, including the accuracy of developing and selecting instructional materials.

A teacher can also develop learning materials on the basis of the students' needs (Pinter, 2006). This situation would happen when a teacher is facing new students. In order to meet the students' needs of English, an English teacher has to find out what English competence the students want to achieve. After knowing the English competence that the students want to achieve, the teacher develops the learning materials to help the learners achieve the English competence they want.

Creating own materials based on "Topic-based planning" means that the materials developed for the learning materials should be based on the topic already chosen and, therefore, all the activities in all areas of the curriculum should be related to that one broad topic.

DEVELOPING LEARNING MATERIALS FOR SPECIFIC PURPOSES

In this section, the application of the principles and procedures of developing learning materials is described focusing on materials development for specific purposes of the teaching of English. In order to develop learning materials for specific purposes, one thing that should become the starting point is the learners' needs. This is in line with the first step of developing learning materials for general purposes as well as that for English as a specific purposes

(ESP) proposes by Hutchinson and Waters (1989:3) which states that ESP is based on designing courses to meet learners' needs.

Learners' needs can be identified by the teachers from the target learners from whom they are going to develop the materials. Very often, learners needs have been formulated by the institution where the learners are learning in the form of learning objectives. These learning objectives can be made more specific in the form of syllabus which according to Hutchinson and Waters (1989:80) means "a document which says what will (or at least what should) be learnt". There are at least eight types of syllabus that can be used to analyze learners' needs: topic syllabus, structural/situational syllabus, functional/notional syllabus, skills syllabus, situational syllabus, functional/task-based syllabus, discourse/skills syllabus, and skills and strategies syllabus. Any syllabus can be used as far as the syllabus can accommodate the analysis of the learners' needs.

In addition to the system approach proposed by Dick and Carey (1990) described in the previous section, Hutchinson and Waters (1989:90-94) propose four approaches of course design process: a language-centered approach, a skills-centered approach, a learning-centered approach, and the post hoc approach. In a language-centered approach, there are five steps to follow, that is, analyzing target situation, writing syllabus, writing or selecting texts to illustrate items in syllabus, writing exercises to practice items in the syllabus, and devising tests for assessing knowledge of the items in the syllabus. In a skills-centered approach, there are six steps to follow: analyzing target needs, selecting interesting and representative texts, devising a hierarchy of skills to exploit the texts, ordering and adapting the texts as necessary to enable a focus on the required skills, devising activities/techniques to teach those skills, and devising a system to assess the acquisition of the skills. In a learning centered-approach, there are three chains of procedures: (1) analyzing learning situation, creating interesting and enjoyable materials, and checking language and skills content of materials and making necessary adjustments; (2) analyzing target situations, establishing general syllabus of topics and tasks, creating interesting and enjoyable materials, and checking language and skills content of materials and making necessary adjustments; (3) analyzing target situations, establishing general syllabus of topics and tasks, producing detailed language/skills syllabus, and checking language and skills content of materials and making necessary adjustments. In the post hoc approach, there are only two steps in the procedure: writing materials on undefined criteria and writing cosmetic syllabus to satisfy sponsors, teachers, students, etc.

To develop these learning materials, a teacher has to follow the correct procedure of developing learning materials. I would like to suggest two major

steps to develop these learning materials. First, a teacher has to learn the learners' needs and especially the syllabus, choose the item by one item from the syllabus one by one and then develop the materials. Second, s/he has to develop the learning materials according to the nature of the learning materials and the principles as well as the procedure of developing the learning materials.

Concerning the nature of the learning materials, a teacher has to be able to differentiate the materials for the content and language. For listening and content materials, for example, a teacher can select the existing materials in the form of a cassette, CD-ROM, video, or any other audio materials that can help the learners to achieve the basic needs that the teacher has formulated. In case the materials do not exactly help the learners to achieve the expected competence, the teacher can add or modify the existing materials or even the teacher can develop his/her own materials.

In dealing with the principles of developing learning materials, in addition to the nature of the learning materials that a teacher has to consider when s/he develops learning materials, a teacher can apply any one or more principles of developing materials stated previously. Principle number 1 suggested by Tomlinson (1998:7-21), for example, that materials should achieve impact. He explains further "The impact is achieved when materials have a noticeable effect on learners, that is, when the learners' curiosity, interest, and attention are attracted." These materials can achieve impact through novelty of, for example, unusual topics, illustrations, and activities; through variety of, for example, using a number of different instructor voices on a cassette; through attractive presentation, for example, using attractive colors; and through appealing content, for example, topics of interest to the target learners, new topics, universal themes, etc. Therefore, even only by referring to one principle of developing learning materials --- impact --- a teacher can develop various materials.

The procedure of developing learning materials which consists of the design, implementation, and evaluation has to be implemented as well in order to produce more accurate learning materials. The design steps include the formulation of the first draft of the learning materials which have considered the syllabus, the target needs, the choice of the suitable nature of learning materials, and the principles of developing learning materials. Having the complete draft of the learning materials, a teacher has to implement the materials to the target learners in the real teaching-learning situation. Any weaknesses found in the try-out or in the implementation of the materials have to be considered to revise the learning materials. This is what is called the evaluation step in the materials development.

CONCLUDING REMARKS

Developing teaching/learning materials has been described from the points of view of the definition, the principles, the procedure, and the practical undertaking of them with the case of developing learning materials for ESP.

Developing teaching/learning materials for ESP is more demanded than that for general English because the availability of the ESP learning materials in public is very rare. Because of this, it is suggested that teachers of ESP develop their own specific materials for their own target language learners. In developing the ESP learning materials, every teacher can follow any approach he/she is familiar with and he/she can develop his/her teaching materials by applying the principles and procedures of language teaching materials including formulating their teaching objectives and syllabus, adapting and or supplementing the existing materials, and or creating their own materials.

This paper is my idea as the combination of the theory of developing teaching/learning materials (Tomlinson, 1998, 2001; Pinter, 2006), the idea of instructional design as proposed by Dick and Carey (1990), and the course design of ESP as proposed by Hutchinson and Waters (1989). There may be some other possible ways of developing teaching/learning materials than the one described in this paper. As the consequence, the same level of specific language for the same level of students may have “different” teaching/learning materials especially if the materials developer and the proficiency level of the students are different.

Therefore, there will never be perfect teaching/learning materials that can be used anywhere, anytime for the same level of students. I strongly suggest that a teacher develop his/her own teaching materials for his/her own specific target learners. If a teacher has to use a textbook for some reason, still s/he has to adjust it with the target learners. There may be some parts of the textbook which are not exactly suitable for the target learners. A teacher is somewhere in the middle where s/he uses a textbook for his/her learners to learn but there is also some space for individual teachers to contribute.

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